Mem. S.A.It. Vol. 77, 1180

Memorie della

The White dwarf population in IPHAS

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Abstract. The Isaac Newton Telescope/Wide Field Camera Photometric Hα survey of the Northern Galactic Plane (IPHAS) surveys the entire Northern Galactic Plane in r', i', and Hα down to r'= 20. Although initially designed to detect Hα emitting sources, IPHAS has proven very useful for detecting sources with strong Balmer line absorption. Hydrogen-rich white dwarfs (WDs) with temperatures in the range 10 000 to 20 000 K (where the Hα line is strongest) can be detected by IPHAS with a very high level of confidence. What fraction of the WD population is hydrogen-rich and in this temperature range is relatively well understood. An IPHAS selected sample with well defined temperature limits will therefore allow an independent determination of the local WD density at low Galactic latitudes where the known sample is highly incomplete, but which is crucial for obtaining correct space densities and scale heights.

Key words. surveys - Galaxy: stellar content - white dwarfs

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